

# PATENT COOPERATION TREATY

TRANSLATION

From the  
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing  
(day/month/year)

Applicant's or agent's file reference

**FP04-0475-00**

**FOR FURTHER ACTION**

See paragraph 2 below

International application No.

**PCT/JP2005/000042**

International filing date (day/month/year)

**05.01.2005**

Priority date (day/month/year)

**06.01.2004**

International Patent Classification (IPC) or both national classification and IPC

Applicant

**HAMAMATSU PHOTONICS K.K.**

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/000042

Box No. 1

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing  
☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2005/000042

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims	<u>1-8</u>	YES
	Claims		NO
Inventive step (IS)	Claims	<u>1-8</u>	YES
	Claims		NO
Industrial applicability (IA)	Claims	<u>1-8</u>	YES
	Claims		NO

**2. Citations and explanations:**

Document 1, JP 2003-005616 A (Hamamatsu Photonics Kabushiki Kaisha), 8 January 2003, Full text; all drawings (Family: none), describes apparatus in which an illumination light irradiates a spatial optical modulating element presented by a computer hologram, and the reproduced image is viewed via a lens and a mask.

Document 2, JP 09-258643 A (Hamamatsu Photonics Kabushiki Kaisha), 3 October 1997, Full text; all drawings & EP 798613 A2 & US 6038042 A, describe apparatus in which a reproduced hologram is viewed via a lens and a light-shielding board.

Document 3, JP 2000-250387 A (Nippon Hoso Kyokai), 14 September 2000, Full text; all drawings (Family: none), describes art that uses the light rays that participate in the image formation of a reproduced high-level image of a true image when reproducing a hologram image in three-dimensional display apparatus that irradiates reproduction light on the interference fringe display surface and uses a lens to reproduce the hologram image.

However, three-dimensional image display apparatus in which either the luminescent spot distance between the luminance spots constituting a target reproduced image to be displayed or the initial phase value of each luminance spot is set in such a way that peaks of reproducing light reaching within the region where the reproduced image can be observed are present in multiple positions in the back focal plane of the reproduction image conversion optical system is neither described in any of the above documents nor obvious on the basis of their descriptions.

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PCT/JP2005/000042

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐

This opinion has been established on the basis of a translation from the original language into the following language

\_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐

a sequence listing

☐

table(s) related to the sequence listing

b. format of material

☐

in written format

☐

in computer readable form

c. time of filing/furnishing

☐

contained in the international application as filed.

☐

filed together with the international application in computer readable form.

☐

furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

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INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2005/000042

<b>Box No. V</b>	<b>Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</b>		
<b>1. Statement</b>			
Novelty (N)	Claims	1 - 8	YES
	Claims		NO
Inventive step (IS)	Claims	1 - 8	YES
	Claims		NO
Industrial applicability (IA)	Claims	1 - 8	YES
	Claims		NO
<b>2. Citations and explanations:</b>			
<p>Document 1, JP 2003-005616 A (Hamamatsu Photonics Kabushiki Kaisha), 8 January 2003, Full text; all drawings (Family: none), describes apparatus in which an illumination light irradiates a spatial optical modulating element presented by a computer hologram, and the reproduced image is viewed via a lens and a mask.</p> <p>Document 2, JP 09-258643 A (Hamamatsu Photonics Kabushiki Kaisha), 3 October 1997, Full text; all drawings &amp; EP 798613 A2 &amp; US 6038042 A, describe apparatus in which a reproduced hologram is viewed via a lens and a light-shielding board.</p> <p>Document 3, JP 2000-250387 A (Nippon Hoso Kyokai), 14 September 2000, Full text; all drawings (Family: none), describes art that uses the light rays that participate in the image formation of a reproduced high-level image of a true image when reproducing a hologram image in three-dimensional display apparatus that irradiates reproduction light on the interference fringe display surface and uses a lens to reproduce the hologram image.</p> <p>However, three-dimensional image display apparatus in which either the luminescent spot distance between the luminance spots constituting a target reproduced image to be displayed or the initial phase value of each luminance spot is set in such a way that peaks of reproducing light reaching within the region where the reproduced image can be observed are present in multiple positions in the back focal plane of the reproduction image conversion optical system is neither described in any of the above documents nor obvious on the basis of their descriptions.</p>			